ENVIRONMENTAL ASSESSMENT FOR 3 BLM ALLOTMENTS
LOCATED IN THE MORA and CONCHAS WATERSHEDS
EA#NM-220-08-044

PURPOSE AND NEED

One of the major uses of public lands administered by the Bureau of Land Management (BLM) has traditionally been the grazing of cattle, sheep or horses for the benefit of individuals and communities throughout the western United States. This use is regulated by public land legislation, including the Taylor Grazing Act, the Endangered Species Act, the Federal Land Policy and Management Act, and the Public Rangelands Improvement Act. This document provides information needed to determine whether BLM should renew leases for cattle grazing on 3 allotments within the Mora and Conchas watersheds for an additional 10 years. The 3 allotments are being analyzed in one document in order to address the cumulative effects of livestock on the BLM parcels in two adjacent watersheds and to reduce the volume of paper involved in the public notification process. The allotments addressed in this Environmental Assessment include: #850 Sixtysix Creek, #954 Alimito and #967 Trementina Mesita.

PROPOSED ACTION AND ALTERNATIVES

Proposed Action: No Action Alternative

Re-issue a term grazing permit without any changes as outlined in Table 1. For additional information, refer to Allotment Evaluation documents available for each allotment at the Taos BLM Field Office.

Alternative 1, No Grazing:

Do not issue grazing permits for these allotments, thereby suspending livestock grazing.

Table 1. Outline of allotment guidelines for permit renewal

Allotment Number	Livestock Type	Livestock Number	Season of Use	Total Federal Acres	Pastures	Grazing System	Proposed Improvements
850	Cattle	1	3/01 - 2/28	80	1	Rotational	Possible vegetation manipulation by fire, herbicide, or mechanical means **
954	Cattle	13	3/01 - 2/28	839	1	Rotational	Possible vegetation manipulation by fire, herbicide, or mechanical means **
967	Cattle	3	3/01 - 2/28	280	1	Unknown	Possible vegetation manipulation by fire, herbicide, or mechanical means **
Monitoring: BLM would continue the rangeland monitoring study program, continue to consult with the grazing permittee on placement of mineral and supplemental feed and continue monitoring for new populations of noxious weeds.							
** These will be addressed in an amendment or in a later NEPA document if and when funding is available.							

Location and Maps

850 - Located approximately 10 miles southeast of Wagon Mound, in Mora County, New Mexico. Elevations run from 6,000 to 6,200 feet. The allotment is located on the USGS Alamosa Creek Quadrangle 7.5 minute series topographic map. T. 19 N., R. 22 E. Sec 8 and 17. This allotment has two parcels.

954 - Located approximately 20 miles southeast of Wagon Mound, in the Mora and San Miguel Counties, New Mexico. Elevations run from 5,200 to 5,800 feet. The allotment is located on the USGS Alimito and Cañon Ancho Quadrangle 7.5 minute series topographic maps. T. 18 N., R. 22 E. Sec 1; T. 18 N., R. 23 E. Sec 2, 6, 8, 9, 14, 15, 17 and 20-23; and T. 17 N., R. 23 E. Sec 34. This allotment has 12 parcels.

967 - Located approximately 2 miles northeast of Trementina, in San Miguel County, New Mexico. Elevations run from 4,900 to 5,400 feet. The allotment is located on the USGS Cañon Olguin, Cerro de Corazon, San Ramon and Variadero Quadrangle 7.5 minute series topographic maps. T. 15 N., R. 23 E. Sec 29, 33 and 34. This allotment has three parcels.

See Figure 1 for the map. Individual allotment maps are available at the Taos Field Office and upon request.

AFFECTED ENVIRONMENT / ENVIRONMENTAL IMPACTS

Areas of Critical Environmental Concern / Special Management Areas

There are no Areas of Critical Environmental Concern or Special Management Areas within or adjacent to the subject allotments, so there would be no effect from **either alternative**.

Wilderness / Wilderness Study Areas

There are no wilderness or wilderness study areas within the subject allotments, thus there would be no effect from **either alternative**.

Air Quality

The Clean Air Act Amendments in 1990 required that all federal actions conform with State Implementation Plans for air quality. One non-attainment area has been designated in New Mexico. None of these areas are located on or near the allotment.

Although this allotment is not within a non-attainment area, greenhouse gas emissions from non-renewable sources often occur from ranching operations. Greenhouse gases (GHG), including carbon dioxide (CO_2) and methane (CH_4), and the potential effects of GHG emissions on climate, are not regulated by the EPA under the Clean Air Act. However, greenhouse gas emissions are linked to climate change.

Under the **proposed action**, GHG emissions are expected to be generated primarily from vehicles used to manage cattle operations and may be estimated to be about 10 tons of relevant emission. The BLM recommends using best management practices to reduce these emissions, such as reducing number of trips, keeping vehicle well maintained, purchasing more fuel efficient vehicles. There would be no effect under the **no grazing alternative**.

Climate

Global mean surface temperatures have increased nearly 1.0°C (1.8°F) from 1890 to 2006 (Goddard Institute for Space Studies, 2007). However, observations and predictive models indicate that average temperature changes are likely to be greater in the Northern Hemisphere. Without additional meteorological monitoring systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions, but increasing concentrations of GHGs are likely to accelerate the rate of climate change.

In 2001, the Intergovernmental Panel on Climate Change (IPCC) predicted that by the year 2100, global average surface temperatures would increase 1.4 to 5.8°C (2.5 to 10.4°F) above 1990 levels. The National Academy of Sciences (2006) supports these predictions, but has acknowledged that there are uncertainties regarding how climate change may affect different regions. Computer model predictions indicate that increases in temperature will not be equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures is more likely than increases in daily maximum temperatures. It is not, however, possible to predict with any certainty regional or site specific effects on climate relative to the proposed lease parcels and

subsequent actions.

However, potential impacts to natural resources and plant and animal species due to climate change are likely to be varied, including those in the southwestern United States. For example, if global climate change results in a warmer and drier climate, increased particulate matter impacts could occur due to increased windblown dust from drier and less stable soils. Cool season plant species' spatial ranges are predicted to move north and to higher elevations, and extinction of endemic threatened/endangered plants may be accelerated. Due to loss of habitat or competition from other species whose ranges may shift northward, the population of some animal species may be reduced or increased. Less snow at lower elevations would likely impact the timing and quantity of snowmelt, which, in turn, could impact water resources and species dependant on historic water conditions. Forests at higher elevations in New Mexico, for example, have been exposed to warmer and drier conditions over a ten year period. Should the trend continue the habitats and identified drought sensitive species in these forested areas and higher elevations may also be more affected by climate change.

In New Mexico, a recent study indicated that the mean annual temperatures have exceeded the global averages by nearly 50% since the 1970's (Enquist and Gori). Similar to trends in national data, increases in mean winter temperatures in the southwest have contributed to this rise. When compared to baseline information, periods between 1991 and 2005 show temperature increases in over 95% of the geographical area of New Mexico. Warming is greatest in the northwestern, central, and southwestern parts of the state.

We anticipate that monitoring efforts will help indicate vegetation shifts, allowing for management modifications to address global climate change.

Soils

The following soils are identified as occurring on the allotments analyzed in the watershed:

Bernal-Rock outcrop-Carnero complex, moderately sloping. These soils consist of loam and clay loams, with rooting depths between 10 to 35 inches. Parent materials of residuum derived from sandstone and modified with eolian material comprise these soils. Average annual precipitation ranges between 14 and 18 inches. Vegetation is characterized by blue grama, sideoats grama, galleta, little bluestem, New Mexico feathergrass, western wheatgrass, bottlebrush squirreltail, juniper and cholla.

Carnero-Patri association, undulating. These soils consist of silt and clay loams, with rooting depths over 20 to over 60 inches. Parent materials of residuum derived from sandstone and modified with eolian material and limestone comprise these soils. Average annual precipitation ranges between 14 and 18 inches. Vegetation is characterized by blue grama, sideoats grama, galleta and western wheatgrass.

Crews-Tricon association, undulating. These soils consist of silt loams, with rooting depths 8 to 40 inches. Parent materials of mixed material derived from sandstone and shale comprise these soils. Average annual precipitation ranges between 14 and 18 inches. Vegetation is characterized by blue grama, sideoats grama, little bluestem, New Mexico feathergrass, western wheatgrass, pinyon and juniper.

Haplustolls-Rock outcrop complex, extremely steep. These soils consist of stony sandy loams, with rooting depths 10 to over 60 inches. Parent materials of alluvial and eolian material derived from mixed sources and sandstone or shale escarpments comprise these soils. Average annual precipitation ranges between 14 and 18 inches. Vegetation is characterized by blue grama, sideoats grama, little bluestem, and pinyon.

Latom-Newkirk-Rock outcrop association, rolling. These soils consist of fine sandy loams and rock outcrops, with shallow rooting depths of approximately 13 to 20 inches. Parent material is sandstone. Average annual precipitation is around 14 inches. Vegetation is characterized by sideoats grama, blue grama, black grama and little bluestem

Newkirk-Walkon-Conchas association, undulating. These soils consist of loam and sandy loams, with rooting depths approximately 13 to 40 inches. Parent materials of sandstone and shale comprise these soils. Average annual precipitation is around 14 inches. Vegetation is characterized by blue grama, black grama, galleta, sideoats grama, little bluestem and New Mexico feathergrass.

Partri loam, gently sloping. These soils consist of loams, with rooting depths over 60 inches. Parent materials of alluvium derived predominately limestone, sandstone and basalt comprise these soils. Average annual precipitation ranges between 14 and 18 inches. Vegetation is characterized by blue grama, western wheatgrass, sideoats grama, and galleta.

Partri-Carnero-Bernal association, undulating. These soils consist of silt and clay loams, with rooting depths over 10 to over 60 inches. Parent materials of residuum derived from sandstone and modified with eolian material and limestone comprise these soils. Average annual precipitation ranges between 14 and 18 inches. Vegetation is characterized by blue grama, sideoats grama, galleta and western wheatgrass.

Rock outcrop-Torriorthents complex, very steep. This soil is stony with variable depths and texture. Parent materials of sandstone and shale comprise this soil. Average annual precipitation is around 14 inches. Vegetation is characterized by little bluestem, sideoats grama, blue grama and galleta.

Sombordoro-Rock outcrop-Tuloso complex, very steep. These soils consist of very stony sandy loams, with rooting depths between 6 to 19 inches. Parent materials of mixed material derived from sandstone and shale comprise these soils. Average annual precipitation ranges between 14 and 18 inches. Vegetation is characterized by pinyon, juniper, blue grama, oak, sideoats grama, and little bluestem.

Swastika silt loam, gently sloping. These soils consist of silt to clay loams, with rooting depths over 60 inches. Parent materials of fine textured residuum derived from shale comprise these soils. Average annual precipitation ranges between 14 and 18 inches. Vegetation is characterized by blue grama, western wheatgrass, sideoats grama, and galleta.

Rock outcrop-Torriorthents complex, very steep. This soil is stony with variable depths and texture. Parent materials of sandstone and shale comprise this soil. Average annual precipitation is around 14 inches. Vegetation is characterized by little bluestem, sideoats grama, blue grama and galleta.

Ustorthents-Rock outcrop complex, very steep. This soil is stony with variable depths and texture. Parent materials of sandstone and shale comprise this soil. Average annual precipitation is around 16 inches. Vegetation is characterized by sideoats grama, pinyon, juniper and oak.

The **proposed action** could cause both positive and negative impacts to the soils. Livestock impacts to soils are dependent on management, soil properties and weather. For example, livestock movement over wet soils can result in increased erosion and soil compaction. Proper distribution of livestock minimizes the negative impacts while still providing the positive impacts, such as loosening of compacted soils and breaking up hydrophobic crusts resulting in increased infiltration. It is important that livestock are managed so that density and diversity of vegetation cover are maintained to limit soil loss.

Under current management, soil indicators for the allotments point to good soil condition (Average = 97%) with the lowest Soil and Site Stability rating being 96% (see the 'Standards for Rangeland Health' portion later in this document for further information and explanations).

Based on current knowledge, the **proposed action** will result in no impact or have a positive impact. The **no grazing alternative** would remove livestock from the area and eliminate both the positive and negative impacts of livestock.

Wetlands/Riparian Areas

Sparse riparian vegetation exists along Sixtysix Creek (ephemeral) in allotment #850 and the Arroyo Hondo (ephemeral) in allotment #967. A small section of Sixtysix Creek (approximately 35m long and 4m wide) contains sparse cottonwood cover with scattered hydrophilic vegetation, and a small section of Arroyo Hondo contains sparse tamarisk and cottonwood. Because the hydrology of these systems is ephemeral and does not support a robust riparian zone, it is unlikely that **either alternative** will have an effect on the riparian areas in these allotments.

Allotment #954 contains approximately 0.3 miles of the Mora River within its boundaries. Along this stretch there was sparse cottonwood cover and scattered hydrophilic vegetation. Livestock are unable to reach this riparian area due to topographic barriers; therefore, **neither alternative** will have an effect to the riparian zone on this allotment.

Water Quality

Subsurface water – Current impairments are not identified and ground water is not likely to be impacted by the proposed cattle. Therefore, based on current knowledge, there would be no impact from **either alternative**.

Surface – These allotments are located in Hydrologic Unit (HUC) 1180004; Mora watershed and 1180005; Conchas watershed which comprise 1,468,641 acres along the Mora and Conchas rivers and their tributaries and is further divided into smaller HUCs. The allotments analyzed in this document occur in two of these smaller HUCs (Table 2).

Table 2. Summary of BLM allotments by 10 Digit HUC (subwatershed and NMED evaluation unit).

NMED Assessment Unit	Subwatershed	Allotments	BLM Acreage	Percent of Subwatershed
NM-2305.A_020	Lower Mora River	850, 954	919	0.5%
NM-2305.A_010	Outlet Conchas River	967	280	0.2%

The New Mexico Environment Department surveyed and evaluated perennial reaches in the three mentioned watersheds in 2002 and identified impairments for stream reaches not meeting water quality standards for designated uses. The following impairments are identified for these units:

NM-2305.A-020, Mora River (Canadian River to Shoemaker) – Includes 919 acres of BLM in allotments 850 and 954. This unit was assessed in 2002 and categorized as 5/5C, not supporting limited warm water fishery. Probable cause was lead, with probable sources being range grazing, grazing related sources, agriculture and unknown sources.

Based on Rangeland Health Evaluation surveys, there is not likely to be any increased water quality impairments resulting from the **proposed action**. This opinion is based on two factors: BLM land surface in these subwatersheds comprise a low percentage of the total area and ratings for Soil/Site Stability and Hydrologic Function average over 90% similarity to ecological site descriptions. The **no grazing alternative** may have positive or negative effects based on the disturbance they provide with hoof action and vegetation management.

Floodplains

Surveys occurring during 2007 indicated that flood plains mainly occur within ephemeral channels or arroyos. There are not mapped by FEMA and their frequency and extent of inundation are difficult to estimate due to a lack of gauge data. However, significant flow can occur resulting in channel scouring. Upslope conditions and hydraulic alteration of these channels can degrade the floodplain resulting in excessive erosion and increased

flow rates. Any permittee alteration planned within these channels will require a separate NEPA analysis and permits from other regulatory agencies.

Allotment 954 contains floodplain areas adjacent to the Mora River. Grazing within these floodplains appears to be infrequent. This is due to the difficulty of livestock reaching the river, although private land access up and down the reach make is possible.

Grazing in compliance with the **proposed action** will have minimal adverse effect on floodplains due to timing and intensity of grazing. The **no grazing alternative** would have no direct negative effect on ephemeral floodplains.

Hazardous or Solid Wastes

There were no hazardous or solid wastes identified on the allotments or will result from the proposed action. There would be no effect under **either alternative**.

Wild and Scenic Rivers

There are no Wild and/or Scenic rivers identified within or near the allotments, consequently there is no effect under **either alternative**.

Prime or Unique Farmland

There have been no prime or unique farmlands identified within the Taos Field Area, to there would be no effect under **either alternative**.

Vegetation

Vegetation expected for the soils identified in the allotments include: blue grama, sideoats grama, galleta, little bluestem, New Mexico feathergrass, western wheatgrass, bottlebrush squirreltail, juniper, cholla, pinyon, black grama, oak, cottonwood, tamarisk and other species in smaller amounts.

Grazing may impact vegetation. Other impacts to vegetation have been the lack of natural disturbance. The interdisciplinary resource team concluded that the allotments are in better ecological condition than in the past. Therefore, under the **proposed action**, no additional impacts to vegetation are expected. Under the **no grazing alternative**, there would be no measurable vegetative removal from the allotment.

Noxious Weeds

Any time livestock are grazed in other areas and then returned to the allotment or fed non-certified feed there is a risk of introducing exotic or noxious plant species to the allotment. The **proposed action** would not pose additional risks of introduction or spread of noxious weeds beyond those already occurring. Under both the **proposed action** and **no grazing alternative**, weeds could be introduced by road maintenance equipment or recreational activities.

Under the **proposed action**, weeds could be introduced to the allotment through livestock feces, emergency feed, watering equipment or vehicles associated with the management of livestock. The **no grazing alternative**, would limit the risk of new infestation to those caused by human activities and wildlife.

Cultural Resources

All allotments were visited and Class 2 surveys were completed to identify sites to determine the impacts

grazing may have on the sites located. Results are summarized in Table 3.

Table 3. Summary of cultural resource surveys by allotment

Allotment Number	Total Federal Acres	Survey Date	Sites Recorded	Site Type	Adverse Affects
850	80	7/11/2007	2	Rockshelters (n=2)	NONE
954	838	8/16/2007	0	N/A	NONE
967	280	7/10/2007	2	Lithic Scatters (n=2)	NONE

Under the **proposed action**, grazing intensity would remain at current levels. Based upon a literature, site and survey files review and the reconnaissance inventory, it is likely that little or no damage would result from grazing. But, continued grazing in these subject allotments could impact cultural resources in two ways. First, grazing could cause some trampling of artifacts and features. Second, natural erosion due to ground disturbance could damage sites. These effects would be slightly less under the **no grazing alternative**. As seen in the Table 3, no impacts to cultural resources were discerned during the surveys of the allotments. Therefore, there would be little or no damage to cultural sites form grazing. The **no grazing alternative**, would have no effect on cultural resources by removing livestock from the allotment.

Native American Religious Concerns

There have been no areas of concern identified within these allotments. As part of the EA process, all tribes within the Field Office boundary will receive the opportunity to provide information on any areas of concern in or near the allotments.

Wildlife

Existing habitat with the allotments include; pinyon-juniper woodlands and riparian areas (a key wildlife habitat type as identified in the Comprehensive Wildlife Conservation Strategy [2005] of the New Mexico Department of Game and Fish), and supports seasonal home ranges for elk, mule deer, mountain lion, black bear, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture, songbirds, amphibians, and a variety of insects. Riparian areas provide winter foraging habitat for the bald eagle and represent an important migratory corridor all wildlife species.

Impacts of improper grazing practices on wildlife and habitat include: increased competition for limited water, forage, and space; alteration of vegetative composition and structure; impacts to stream hydrology and water quality; and reduced soil permeability and potential to support plants due to soil compaction. Judicious grazing practices can have positive affects on wildlife and be a beneficial management tool; these include: increases in vegetation composition diversity and improvement of forage availability and quality for early to mid-successional wildlife species; creation of patchy habitat with high structural diversity for feeding, nesting and hiding; opening up areas of dense vegetation to improve foraging areas for a variety of wildlife; removing rank, coarse grass that will encourage regrowth and improve abundance of high quality forage for wild ungulates; stimulating browse production by reducing grass biomass; and improving nutritional quality of browse by stimulating plant regrowth (NMDGF 2005).

Studies in northern New Mexico have indicated that total elimination of grazing did not improve range condition on upland or lowland sites when compared with adjacent moderately grazed areas (Holecheck and Stephenson 1985). There are examples that suggest many wildlife species are tolerant of moderate grazing and many appear to benefit from light to conservative grazing. Smith et al. (1996) found that lightly grazed climax rangelands and conservatively grazed late seral rangelands had similar songbird and total bird populations.

They also concluded that wildlife diversity was higher on the conservatively grazed late seral than the lightly grazed climax rangeland. Studies in southeastern Arizona by Bock et al. (1984) support the hypothesis that conservatively to moderately grazed areas in mid or late seral condition supported greater diversity of wildlife than ungrazed areas in climax condition. Livestock grazing was also shown to enhance forage for elk and manage their distribution by increasing availability and nutritional value of preferred grasses in early growth stages (Holechek et al. 2004).

Best management practices would ensure that forage production within this area can support both wildlife and livestock on a sustained basis. The functionality assessment of habitat components is as outline in Table 4.

Table 4. Functionality assessment for Biotic Fauna.

Allotment	Biotic Fauna Rating	Summary
850	Proper Functioning Condition	N/A
954	Proper Functioning Condition	N/A
967	Proper Functioning Condition	N/A

The **proposed action** would not have a notable adverse impact on wildlife. The **no grazing alternative** would remove all possible competition between wildlife and livestock.

Threatened or Endangered Species/Special Status Species

Federally listed threatened (T) and endangered (E) species in Mora and/or San Miguel counties include: black-footed ferret (*Mustela nigripes*) (E); Southwestern willow flycatcher (*Empidonax traillii extimus*) (E); Holy Ghost Ipomopsis (*Ipomopsis sancti-spiritus*) (E); Arkansas river shiner (*Notropis girardi*) (T); and Mexican spotted owl (*Strix occidentalis lucida*) (T). It is determined that there are no federally listed threatened or endangered species likely to be found in the subject allotments. There is one state-listed threatened species which may be found in the area, the Bald eagle (*Haliaeetus leucocephalus*), during winter months. There is no designated critical habitat for any species listed by the U.S. Fish and Wildlife Service (USFWS) within the allotments. It is determined that the **proposed action** and **no grazing alternative** will have no affect on federally listed proposed, candidate, threatened or endangered species, or state-listed threatened or endangered species.

Migratory bird species of conservation concern (BLM Interim Management Guidance 2008-050) that have the potential to occur on the allotment include burrowing owl, ferruginous hawk, prairie falcon, golden eagle, loggerhead shrike, mourning dove, and pinyon jay. The **proposed action** has the potential to have a negative affect upon individual birds, eggs, young and/or the nesting habitat of ground nesting birds, however, it is unlikely there would be a notable impact to the population or species level. The **no grazing alternative** could have either a beneficial or detrimental affect on individual migratory bird species of concern, depending on the response of range condition and individual species requirements, but affects at the population or species level would not be adverse.

Species of Greatest Conservation Need (NMDGF 2005) that have the potential to occur on the allotment include: mourning dove, loggerhead shrike, bald eagle, golden eagle, olive-sided flycatcher, pinyon jay, yellow warbler, mule deer, tiger salamander, and collared lizard. It is determined that the **proposed action** and **no grazing alternative** will have minimal impacts on Species of Greatest Conservation need.

Social / Economic Issues

BLM permits/leases are transferred to qualified applicants at the request of the current permittee/lessee; the BLM has had no influence on the social makeup of those who currently hold these permits. Therefore, it has been determined that neither the **proposed action** nor the **no grazing alternative** would be likely to result in

impacts which would occur disproportionately in low-income groups, minorities or Indian tribes. With regard to economics, the **proposed action** would allow the permittee to continue the lifestyle they have known and earn money from cattle operations on federal lands. Suspension of the grazing permit under the **no grazing alternative** would cause monetary losses to the permittee/lessee, in the form of increased costs to rent additional pasture or in purchasing feed.

Recreation

There are no developed recreation sites on the subject allotments, thus neither the **proposed action** nor the **no grazing alternative** would have measurable impacts on recreation.

Standards for Rangeland Health

Field crews completed the Rangeland Health Evaluation Summary Worksheet for all the subject allotments, with subdivision by parcel or distinct Ecological Site. Results are summarized in Table 5 by Soil/Site Stability, Hydrologic Function and Biotic Integrity and totals by site and indicator group. The percent similar indicator score was created by multiplying an assigned value for departure from site descriptions/reference areas by the number of indicators at the level. Departure scores are categorized as: none to slight = 5, slight to moderate = 4, moderate = 3, moderate to extreme = 2 and extreme = 1, thus giving the most similar sites the highest score.. For example, if all indicators under Soil/Site Stability were rated none to slight (best condition), the equation would be 5(score)*9indicators=45/45*100 = 100% similarity, or what is expected based on an Ecological Site Description.

The Standards are a tool for assessing range condition and are not analyzed under **either alternative** here. If an allotment or pasture falls below 80% in the Soil Site Stability, Hydrologic, or Biotic indicators, monitoring should be established to determine the cause/s of the low rating. The BLM in consultation with the permittee and various other agencies, through an interdisciplinary effort would develop goals and objectives for the areas that are falling below 80% to improve the condition.

Table 5. Summary of indicators by allotment.

Allotment Number	Observers	Survey Date	Percent of Soil/Site Stability	Percent of Hydrologic Function	Percent of Biotic Integrity	Average Percentage
850	Besser, Dicks, Lopez, Meyer	7/11/2007	96%	96%	98%	97%
954	Besser, Dicks, Meyer Lopez, Riehn, Young	8/16/2007	100%	100%	100%	100%
967	Besser, Dicks, Lopez, Meyer	7/10/2007	96%	96%	93%	95%

Residual Impacts

Residual impacts of livestock grazing would not change under the **proposed action**. There would continue to be moderate removal of current years growth on forage species. This removal may be detectable by visitors to the area but is within the acceptable range. Livestock would be visible on the allotment during their season of use. This can be positive or negative depending on the perspective of each visitor. There would be no measurable impact from the **no grazing alternative**.

Cumulative Impacts

BLM land comprises roughly 1.5% of the area within the Mora and Conchas watersheds. (Percentages are relative to lands within Taos Field Office.) The subject allotments cover roughly 30% of the BLM land in these watersheds and 0.2% of the total land mass of these watersheds. Due to the relatively low percentages of

federal land involved, and with no changes being made to livestock management on these allotments, there would be no significant impact. Livestock grazing is only one of several disturbance activities within the area. Some uses with similar impacts are off-road vehicles, other recreational use and road construction and maintenance. There would be no measurable cumulative impacts from the **proposed action** or the **no grazing alternative**.

Conformance with Plans

The proposed permit renewals within this document are in conformance with the Taos Resource Area Management Plan (1988). Livestock grazing impacts were analyzed on a Resource Area wide basis in the Taos Resource Management Plan. An Allotment Evaluation (AE) document has been prepared for each allotment and is available for review at the Taos Field Office. Individual allotment maps are available at the Taos Field Office and upon request.

Consultation and Coordination

This Environmental Assessment will be mailed to all individuals or organizations who have notified the Taos Field Office of their interest. These individuals or organizations will be given 15 days to make comments on the accuracy of this document.

Preparers

This document was prepared and reviewed by a team from the Taos Field Office. They include:

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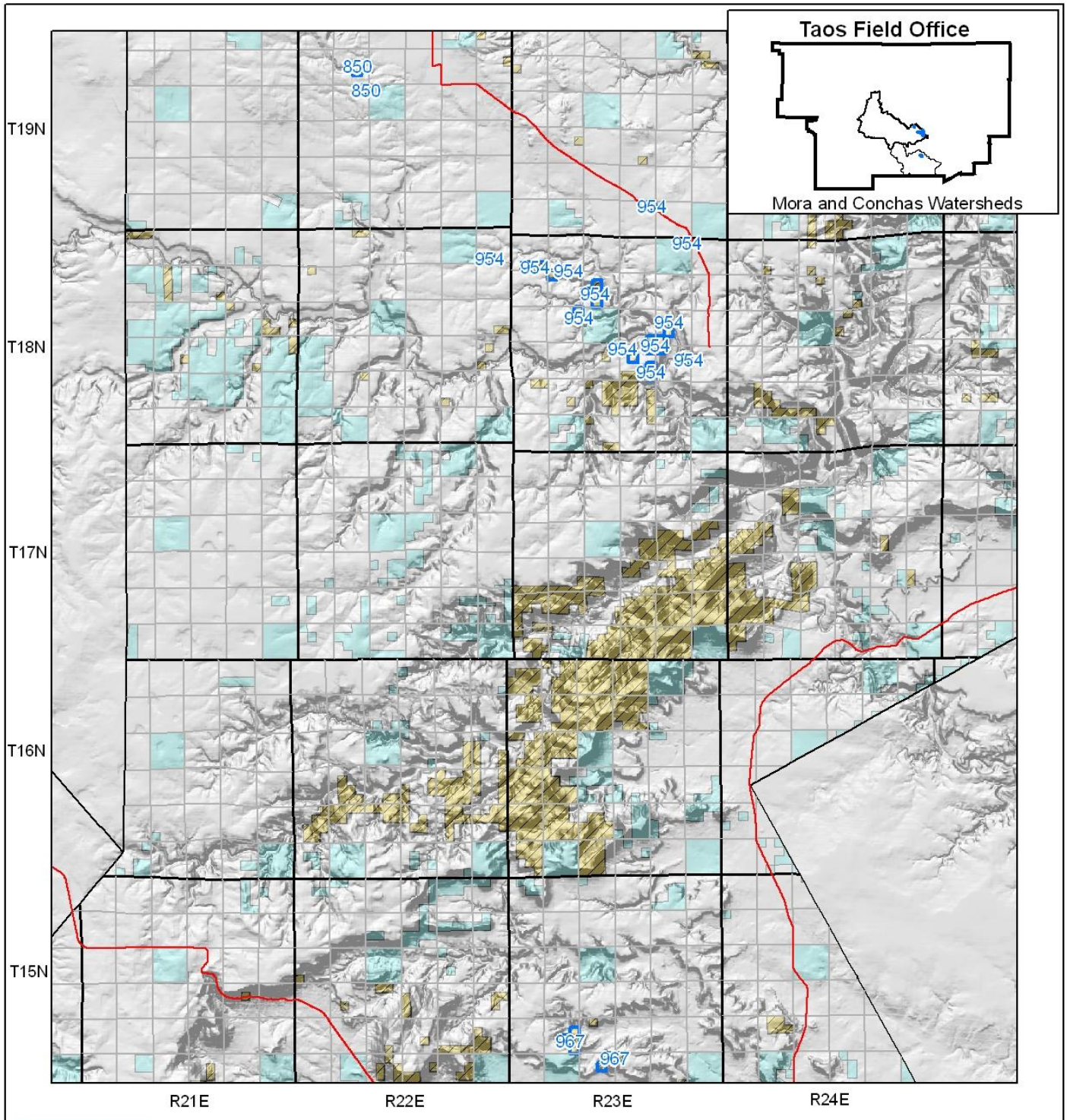

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Allotments 850, 954 & 967 within the Conchas and Mora Watersheds

0 1 2 4 6 8 Miles

N
W E
S

Legend

- Allotment Boundary
- Bureau of Land Management
- State
- Private

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